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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,375

08/25/2006

Koen J.G. Holtman

US040167US2

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7590

10/27/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

ZHAO, YU

ART UNIT

PAPER NUMBER

2169

MAIL DATE

DELIVERY MODE

10/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/598,375

**Applicant(s)**

HOLTMAN, KOEN J.G.

**Examiner**

YU ZHAO

**Art Unit**

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 25 August 2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. **Claims 1-38** are presented for examination.

2. The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

### ***Priority***

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Certified copy has been received. Priority date of **March 25, 2005** is given.

4. It is acknowledged that the pending application claims priority to provisional application **60/557498** filed on **March 30, 2004**. Priority date of **March 30, 2004** is given.

### ***Information Disclosure Statement***

5. The information disclosure statement (IDS) submitted on **August 25, 2006** is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Drawings***

6. The drawings are objected to because Specification recites "Fig. 1 is an illustration of...five fragments 101-105..." (Spec.: page 1, lines 18-19). However, fragments 101-105 are not labeled in Fig. 1. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the

abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

7. The abstract of the disclosure is objected to because it is not compliant with U.S. format. Correction is required.

### ***Claim Objections***

8. **Claims 1, 7-15, 20-27** are objected to because of the following informalities: The claims of the instant invention are not compliant with U.S. format (e.g. Claims should not contain figure/item numbers). Correction is required.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

a. Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under § 101 and should be rejected as being directed to nonstatutory subject matter.

9. **Claims 1-38 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.**

As to **claims 1-27**, “A playback apparatus...” claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program’s functionality to be realized.

As to **claims 28-38**, “A method ranking...” claimed as method claims that recited purely mental steps. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. As such, they fail to tie with a statutory category. Thus, to qualify as a § 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1-38 are rejected under 35 U.S.C. 102(b) as being anticipated by Hunt et al. (U.S. Patent No.: US 6,128,712, hereinafter, Hunt).**

**For claim 1, Hunt discloses a playback apparatus for use in a reproducing system which includes a plurality of play modes, comprising:**

**a memory (335) configured to store data to be read from a data source (1), said data configured as a plurality of data blocks on said data source (1)** (Hunt: column 2, lines 6-16, "...a playback device has only a limited amount of internal memory available...only a portion of the data and application code of a multimedia work can be stored in the playback device's internal memory at one time. The remainder of the data and application code needed to playback the multimedia work must be stored in external memory devices (stores) such a hard drive, a CD-ROM, or a network server. Often, a combination of such stores are used.", column 8, lines 47-52, "FIG. 3 is a schematic diagram of a computer system that may be used as a playback device for the present invention. The computer system shown in FIG. 3 includes a CPU unit 300 that includes a central processor, main RAM memory 305...", column 9, lines 14-16);

**a presentation unit (340) configured to retrieve one or more data blocks from the memory (335) for presentation to a user** (Hunt: column 1, lines 48-65, "To present (or "play") a segment, the playback device being used...

to play a video clip contained in a segment of a multimedia work...to display the video clip, the computer's processor must have access to an MPEG video player...", column 8, lines 52-56, "The computer system shown in FIG. 3 includes...peripheral interfaces...a playback device 310 which may be a cathode ray tube display, LCD display, gas-plasma display, or any other computer display; an audio output device...");

**a controller (365) configured to manage the contents of the memory (335) and control the operations of said data source (1), said controller comprising** (Hunt: column 8, line 66-column 9, line 16, "For the purposes of this example description, it will be assumed that CPU 300 of FIG. 3...in FIG. 4, the operation begins by loading the resources required for the current segment (segment S1 in the present example) at block 400. These resources are resources R10-R19 listed in Table 1. According to Table 1...", where "controller" is read on "CPU", column 23, lines 11-16, "...the order in which resources are preloaded into the memory of a playback device may be controlled by the playback device (client driving model) or the storage device"):

**a ranking unit (360) operable to rank the desirability of at least two data blocks from among said plurality of data blocks wherein said desirability ranking is based on criteria comprising** (Hunt: column 3, lines 40-43, "the probability factors are dynamically updated based on observations of actual



use.", column 15, lines 16-39, "...the priority factor matrix is equivalent to the probability factor matrix. The priority factors in the priority factor matrix are used in this embodiment of the invention to determine the order for pre-loading resources for other segments while a particular segment is being executed...the resources for segment S5 are pre-loaded first, followed by the resources for segment S1. Because the priority factors for all other segments are zero, the resources for these segments are not pre-loaded while segment S3 is executing in this embodiment.", where "data block" is read on "segment"):

**(i) each of said at least two data blocks predicted future use in at least two of said plurality of play modes** (Hunt: column 5, line 51-column column 6, line 27, "At branch point 100 of FIG. 1, a transition occurs from segment S1 110 to a succeeding segment along one of four possible branches 115, 125, 135 or 145. The particular branch along which the transition occurs is dependent upon user or external input.", where "mode" can be broadly interpreted as "branches", column 19, lines 39-46, "FIGS. 7A-7F illustrate a method used in one embodiment of the invention to determine probability factors that are estimates of the probability that a segment will follow a currently executing segment...", lines 56-67, "either segments S2 or S3 may follow segment S1...Probability factors for the transitions from segment S1 701

to segments S2 702 and S3 703...", column 22, lines 26-32, "FIGS. 7B-7G show probability trees for segments S2-S7, respectively, constructed from FIG. 6 in the same manner as the probability tree for segment S1 in FIG. 7A. From each of these probability trees, probability factors may be calculated in the same manner as the probability factors of Table 12 are calculated from the probability tree of FIG. 7A.", s2 and s3 represent two data blocks which are ranked according the probabilities in Fig. 7A, while s2 contains QuickTime Movie and s3 contains WAV audio file. Therefore also at least two play modes are involved when loading there segments and prioritizing the preload.) and (ii) **the relative ranking of said at least two of said plurality of play modes** (Hunt: column 5, line 51-column column 6, line 27, column 19, lines 39-46, lines 56-67, column 22, lines 26-32, by ranking s1 and s2 according Figures 7A and 7B also the play modes QuickTime and MPEG video are ranked.).

**For claim 15, Hunt discloses a playback apparatus for use in a reproducing system which includes a plurality of play modes, comprising:**

**a memory (335) configured to store data to be read from a data source (1), said data configured as a plurality of data blocks on said data source (1)** (Hunt: column 2, lines 6-16, column 8, lines 47-52, column 9, lines 14-16);

**a presentation unit (340) configured to retrieve one or more data blocks from the memory (335) for presentation to a user** (Hunt: column 1, lines 48-65, column 8, lines 52-56);

**a controller (365) configured to manage the contents of the memory (335) and control the operations of said data source (1), said controller comprising** (Hunt: column 8, line 66-column 9, line 16, where "controller" is read on "CPU", column 23, lines 11-16):

**a ranking unit (360) operable to rank the desirability of at least two data blocks from among said plurality of data blocks wherein said desirability ranking is determined from:** (Hunt: column 15, lines 16-39, where "data block" is read on "segment"):

**(i) extrapolating data block usage in said at least two of said plurality of play modes and (ii) interleaving the extrapolations** (Hunt: column 3, lines 40-43, column 5, line 51-column 6, line 27, column 19, lines 39-46, lines 56-67, column 22, lines 26-32, Fig. 7G, the extrapolations of the probability to preload block s7 or block s4 or block s3 are several time taken into account in the graph. Blocks s3 and s4 involve different play modes according Table 1. Therefore the extrapolations also are "interleaved").

**For claim 2, Hunt discloses the playback apparatus of claim 1, wherein said desirability ranking criteria of each of said at least two data blocks predicted future use in at least two of said plurality of play modes further comprises determining a time of said predicted future use** (Hunt: column 3, lines 44-65, "...in addition to assigning a probability factor to each possible succeeding segment for a preceding segment, a retrieval and delivery time cost factor is also assigned to each possible

succeeding segment. The retrieval and delivery time cost factor represents an estimate of the time required to retrieve and deliver to the playback device all of the resources required to execute the segment...and other factors that determine the time required for a resource to be located, retrieved, and delivered to the playback device.").

**For claim 3, Hunt discloses the playback apparatus of claim 1, wherein said relative ranking of said at least two of said plurality of play modes is based on the probability of the playback apparatus remaining in or switching to said at least two of said plurality of play modes at a future time** (Hunt: column 3, lines 44-65, column 5, line 51-column column 6, line 27, column 19, lines 39-46, lines 56-67, column 22, lines 26-32, Fig. 7A- Fig. 7G, when analyzing the probabilities to load certain segments, the probabilities to change the play modes implicitly are analyzed).

**For claim 4, Hunt discloses the playback apparatus of claim 1, wherein said relative ranking of said at least two of said plurality of play modes is based on a user's past usage patterns of said at least two of said plurality of play modes** (Hunt: column 3, lines 32-43).

**For claim 5, Hunt discloses the playback apparatus of claim 1, wherein said relative ranking of said at least two of said plurality of play modes is based on a current play mode and whether a recent play mode change has occurred** (Hunt: column 3, lines 32-43).

**For claim 6, Hunt discloses the playback apparatus of claim 1, wherein said relative ranking of said at least two of said plurality of play modes is based on a user's play mode preferences (Hunt: column 3, lines 32-43).**

**For claim 7, Hunt discloses the playback apparatus of claim 1, further comprising a disc control unit (345) in communication with said ranking unit (360), said disc control unit (345) configured to use at least said desirability ranking to determine which of said plurality of data blocks to retrieve from said data source (1) (Hunt: column 2, lines 6-16, column 8, lines 47-52, column 9, lines 14-16).**

**For claim 8, Hunt discloses the playback apparatus of claim 1, wherein said controller (365) further comprises a memory management unit (350) in communication with said ranking unit (360), said memory management unit (350) configured to delete data blocks from said memory (335) (Hunt: column 16, lines 33-46, "delete" is read on "free up").**

**For claim 9, Hunt discloses the playback apparatus of claim 8, wherein those data blocks having the lowest relative ranking in said memory (335) are selected for deletion by said memory management unit (350) (Hunt: column 16, lines 33-46, "lowest relative ranking" is read on "lowest priority").**

**For claim 10, Hunt discloses the playback apparatus of claim 9, further comprising a disc control unit (345) in communication with said ranking unit (360), said disc control unit (345) configured to use at least said desirability ranking to determine which of said plurality of data blocks to retrieve from said**

**data source (1)** (Hunt: column 2, lines 6-16, column 8, lines 47-52, column 9, lines 14-16).

**For claim 11, Hunt discloses the playback apparatus of claim 10, wherein said memory management unit (350) and said disc control unit (345) utilize the same fragment ranking criteria** (Hunt: column 3, lines 35-65, column 15, lines 16-39, column 19, lines 40-53).

**For claim 12, Hunt discloses the playback apparatus of claim 1, further comprising a candidate identifier unit (355) configured to select a set of candidate blocks from said plurality of data blocks on said data source (1) for consideration by said ranking unit (360) and said disc control unit (345)** (Hunt: column 2, lines 6-16, column 3, lines 35-65, column 8, lines 47-52, column 9, lines 14-16, column 15, lines 16-39, column 19, lines 40-53).

**For claim 13, Hunt discloses the playback apparatus of claim 12, wherein said set of candidate blocks is selected by said candidate identifier unit (355) by extrapolating, for said at least two play modes, the data blocks to be read by said presentation unit (340) during operation in each of said at least two play modes** (Hunt: column 1, lines 48-65, column 3, lines 40-43, column 5, line 51-column 6, line 27, column 8, lines 52-56, column 19, lines 39-46, lines 56-67, column 22, lines 26-32).

**For claim 14, Hunt discloses the playback apparatus of claim 13, wherein said extrapolation begins substantially near a block that is currently being presented by said presentation unit (340)** (Hunt: column 1, lines 48-65, column 3,

lines 40-43, column 5, line 51-column column 6, line 27, column 8, lines 52-56, column 19, lines 39-46, lines 56-67, column 22, lines 26-32).

**Claim 16** is rejected as substantially similar as claim 3, for the similar reasons.

**Claim 17** is rejected as substantially similar as claim 4, for the similar reasons.

**Claim 18** is rejected as substantially similar as claim 5, for the similar reasons.

**Claim 19** is rejected as substantially similar as claim 6, for the similar reasons.

**Claim 20** is rejected as substantially similar as claim 7, for the similar reasons.

**Claim 21** is rejected as substantially similar as claim 8, for the similar reasons.

**Claim 22** is rejected as substantially similar as claim 9, for the similar reasons.

**Claim 23** is rejected as substantially similar as claim 10, for the similar reasons.

**Claim 24** is rejected as substantially similar as claim 11, for the similar reasons.

**Claim 25** is rejected as substantially similar as claim 12, for the similar reasons.

**Claim 26** is rejected as substantially similar as claim 13, for the similar reasons.

**Claim 27** is rejected as substantially similar as claim 14, for the similar reasons.

**Claim 28** is rejected as substantially similar as claim 1, for the similar reasons.

**Claim 29** is rejected as substantially similar as claim 2, for the similar reasons.

**Claim 30** is rejected as substantially similar as claim 3, for the similar reasons.

**Claim 31** is rejected as substantially similar as claim 4, for the similar reasons.

**Claim 32** is rejected as substantially similar as claim 5, for the similar reasons.

**Claim 33** is rejected as substantially similar as claim 15, for the similar reasons.

**Claim 34** is rejected as substantially similar as claim 2, for the similar reasons.

**Claim 35** is rejected as substantially similar as claim 3, for the similar reasons.

**Claim 36** is rejected as substantially similar as claim 4, for the similar reasons.

**Claim 37** is rejected as substantially similar as claim 5, for the similar reasons.

**Claim 38** is rejected as substantially similar as claim 6, for the similar reasons.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU ZHAO whose telephone number is (571)270-3427. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tony Mahmoudi can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4427.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 10/17/2008

/Yu Zhao/

/Tony Mahmoudi/



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Art Unit: 2169

Examiner, Art Unit 2169

Supervisory Patent Examiner, Art

Unit 2169

/Y. W./

**Primary Examiner, Art Unit 2169**